IN THE CLAIMS:

The current claims follow. For claims not marked as amended in this response, any difference in the claims below and the previous state of the claims is unintentional and in the nature of a typographical error.

1. (Currently Amended) A communications receiver, comprising a pulse detection unit, for detecting pulses in a received signal, the pulse detection unit comprising:

a plurality of comparators;

a sampling time ~~generator, for generating~~ generator configured to generate timing signals indicative of a plurality of sampling time ~~points;~~ points within a received pulse; and

a reference level ~~generator, for generating~~ generator configured to generate a plurality of reference levels,

wherein each of the comparators is programmable with a sampling time point selected from said plurality of sampling time points and with a reference level selected from said plurality of reference levels, and

wherein the received signal is applied to each of the comparators such that each of the comparators is configured to produce~~produces~~ a respective output signal based on a comparison between the received signal level and the selected reference level at the selected sampling time point.

2. (Currently Amended) [[A]]The communications receiver as claimed in claim 1, comprising a signal processor, for detecting pulses in the received signal based on the output signals from the comparators.

3. (Currently Amended) [[A]]The communications receiver as claimed in claim 2, wherein the signal processor is adapted to program the comparators with respective selected sampling time points and reference levels, in order to detect said pulses.

4. (Currently Amended) [[A]]The communications receiver as claimed in claim 1, comprising a ~~pre-amplifier, for pre-amplifying~~ pre-amplifier configured to pre-amplify the received signal to an appropriate level for comparison with the plurality of reference levels.

5. (Currently Amended) [[A]]The communications receiver as claimed in claim 1, wherein the reference level generator is adapted to scale the generated plurality of reference levels for comparison with the received signal.

6. (Currently Amended) [[A]]The communications receiver as claimed in claim 1, further comprising a current ~~reference, for driving~~ reference configured to drive bias currents to said plurality of comparators.

7. (Currently Amended) A method of detecting pulses received in a communications receiver, the method comprising:

generating timing signals indicative of a plurality of sampling time ~~points;~~points within a received pulse;

programming each of a plurality of comparators with a sampling time point selected from said plurality of sampling time points and with a reference level selected from said plurality of reference levels, and

applying the received signal to each of the comparators such that each of the comparators produces a respective output signal based on a comparison between the received signal level and the selected reference level at the selected sampling time point.

8. (Currently Amended) [[A]]The method as claimed in claim 7, comprising detecting pulses in the received signal based on the output signals from the comparators.

9. (Currently Amended) [[A]]The method as claimed in claim 7, comprising pre-amplifying the received signal to an appropriate level for comparison with the plurality of reference levels.

10. (Currently Amended) [[A]]The method as claimed in claim 7, wherein comprising scaling the generated plurality of reference levels for comparison with the received signal.

11. (Currently Amended) [[A]]The method as claimed in claim 7, comprising programming the comparators with respective selected sampling time points and reference levels, based on knowledge about the possible shapes of said pulses.

12. (Currently Amended) [[A]]The method as claimed in claim 7, comprising programming the comparators with respective selected sampling time points and reference levels, based on knowledge about the expected arrival times of said pulses.

13. (New) A pulse detection unit capable of detecting pulses in a received signal, the pulse detection unit comprising:

a plurality of comparators;

a sampling time generator configured to generate timing signals indicative of a plurality of sampling time points within a received pulse; and

a reference level generator configured to generate a plurality of reference levels,

wherein each of the comparators is programmable with a sampling time point selected from said plurality of sampling time points and with a reference level selected from said plurality of reference levels, and

wherein the received signal is applied to each of the comparators such that each of the comparators is configured to produce a respective output signal based on a comparison between the received signal level and the selected reference level at the selected sampling time point.

14. (New) The pulse detector as claimed in claim 13, comprising a signal processor, for detecting pulses in the received signal based on the output signals from the comparators.

15. (New) The pulse detector as claimed in claim 14, wherein the signal processor is adapted to program the comparators with respective selected sampling time points and reference levels, in order to detect said pulses.

16. (New) The pulse detector as claimed in claim 13, comprising a pre-amplifier configured to pre-amplify the received signal to an appropriate level for comparison with the plurality of reference levels.

17. (New) The pulse detector as claimed in claim 13, wherein the reference level generator is adapted to scale the generated plurality of reference levels for comparison with the received signal.

18. (New) The pulse detector as claimed in claim 13, further comprising a current reference configured to drive bias currents to said plurality of comparators.

19. (New) The pulse detector as claimed in claim 13, wherein the pulse detector is adapted for use in an ultra wide band communications receiver.

20. (New) The communications receiver as claimed in claim 1, further comprising:

at least one antenna; and

receive circuitry configured to perform initial radio frequency processing of the received signal.